

the medial malleolus on the right side there is a  $1\frac{3}{4}$  inch transverse cut-down incision. Cephalad to this is a transverse  $1\frac{3}{4}$  inch superficial transverse incised wound. Above the left medial malleolus there is a  $1\frac{1}{2}$  inch cut-down type of incised wound. To the left of the midline region of the second thoracic vertebra there is a very faint  $\frac{3}{8}$  inch bluish discolored area. In the right antecubital fossa is a very tiny needle puncture type of wound surrounded by bluish discoloration. In the left antecubital fossa there are three small needle puncture type of wounds surrounded by bluish discoloration. The nails are examined. They are somewhat dirty although quite well cared for. No evidence of injury is noted. On the midportion dorsum of the left hand, there is a poorly defined pale white oblique  $\frac{1}{2}$  inch scar. Over the volar aspect of the right wrist there is a transverse superficial  $\frac{1}{4}$  inch abrasion. Volar aspect of the left wrist there is a transverse  $1\frac{3}{4}$  inch slightly raised white scar. Medial aspect of the right knee reddish very poorly defined  $7/8 \times 1/4$  inch reddish discoloration. Over the left arm, below the deltoid there is a transverse  $5/8 \times 3/4$  inch somewhat puckered and irregular scar. A few striae along the lateral aspect of the thighs. Some of the hair of the chest has been shaved. In addition, to the left of the midline there is a round poorly defined round impression on the skin, the diameter of which is 2 inches. Over the medial aspect mid-distal third of the left arm there is a  $1\frac{1}{2}$  inch vertical scar with cross hatching.

23 inches from the top of the head and  $3\frac{3}{8}$  inches to the left of the midline anteriorly and  $10\frac{3}{4}$  inches to the left of the midline posteriorly, over the lower aspect of the left chest there is an entrance type of wound which measures  $1/4 \times 5/16$  inch in diameter. This is surrounded by a contusion ring, the total diameter of the contusion ring are  $3/8$  of an inch.

22 inches from the top of the head and  $9\frac{3}{4}$  inches to the right of the midline anteriorly and  $8\frac{1}{2}$  inches to the right of the midline of the back there is a vertical  $2 \times 1$  inch gaping wound. Posterior to this by  $\frac{1}{2}$  inch there is a  $3/4 \times 3/8$  inch irregular contused area.

**INCISIONS:** The standard "Y" thoracoabdominal and intercostal incisions are utilized. Reflecting the skin there is found to be a wound between the fourth and fifth rib which extends through the soft tissue and measures 6 inches in length. This conforms to the wound on the left chest. The incision is continued through the abdominal wound as well as the thoracotomy wound to the left of the midline of the chest.

**SEROUS CAVITIES:** Examination of the serous cavities is made. In the left pleural space approximately 175 cc. of blood. In the right pleural space there is in excess of 600 cc. of blood. In the peritoneal cavity there is in excess of 1000 cc. of blood with clot formation. In addition, there is massive retroperitoneal hemorrhage. The caecum adjacent to the transverse colon and stomach is hemorrhagic and irregularly torn.

The abdominal periculus measures  $1\frac{3}{4}$  inches.

**THE COURSE OF THE WOUND IS FOLLOWED.** It is found to notch the undersurface of the seventh rib at the costochondral junction, this is surrounded by hemorrhage. In its course it notches the diaphragmatic attachment in this region, however, the left lung is not penetrated. The course is found to go from left to right and backward. In its course it is found to strike the anterior edge of the spleen and there is a cruciate laceration of the spleen measuring approximately  $1.5 \times 2$  cm.

The missile is found to penetrate the stomach along the greater curvature of the body of the stomach, the penetration measuring 9 cm. It exits from the stomach along the posterior wall, lesser curvature, 2 cm. distal to the cardioesophageal junction. The penetration measures 8 cm. It pursues a course backward and to the right slightly caudad to the coeliac axis and there is extensive hemorrhage in this area. The anterior and right antero-lateral aspect of the aorta is torn with the superior mesenteric artery being severed. The right renal artery shows destruction and hemorrhage along the cephalad portion. The right renal vein is torn and the tear involves the inferior vena cava, the dorsal surface. It courses through the upper pole of the right kidney along the anterior surface causing a jagged and irregular laceration covering a distance of  $9 \times 2$  cm. with penetration into the calyces. It becomes peritonealized in the hepatorenal pouch and there is a jagged and irregular laceration of the liver covering a distance of  $9.5 \times 2 \times 2$  cm. From the liver it penetrates the diaphragm posteriorly on the right side. It then passes adjacent to the lung in the pleural space and the right lung is not penetrated. The eleventh rib to the right of the midline is irregularly fractured and an exit type of wound in this region and in the soft tissue along the posterior axillary line right side there is an incised wound and fragmentation of the rib.

**NECK ORGANS:** The neck organs are examined. They are not remarkable. The hyoid is intact. No evidence of injury is noted. The thyroid gland is not remarkable grossly.

**THORAX:** The trachea and bronchi are not remarkable. The right lung is quite well aerated. The left lung is atelectatic. The peribronchial tissue is not remarkable, however, there is hemorrhage in the posterior mediastinum.

**HEART:** Examination of the right atrium as well as the right ventricle and a pulmonary artery shows frothing bubbles. The epicardium is markedly congested with petechial hemorrhages, more marked over the left ventricular portion. The heart weighs 330 gm. There are a few subendocardial petechial hemorrhages. Along the anterior right ventricular surface there is a single suture. This is in the epicardial fat. The right ventricle measures 2 to 3 cm., the left 1.2 to 1.3 cm. The valvular circumference are as follows: aortic valve - 7 cm., mitral valve - 10.5 cm., tricuspid valve - 11.5 cm., and pulmonary valve - 7 cm. The coronary orifices are in the normal location. The coronary arteries are examined in situ, found to be thin, delicate, of normal distribution and free of occlusions. There are left ventricular myocardial hemorrhages.

**LIVER:** The liver weighs 1260 gm. The penetration of the liver has previously been described.

**GALLBLADDER & BILIARY TREE:** Not remarkable.

**PORTACAVAL SYSTEM:** Examination of the portacaval system is made. There is frothing blood in the portacaval system. Extensive hemorrhage is noted to surround this, particularly in the region of the pancreas.

**PANCREAS:** The pancreas is surrounded by hemorrhage. The parenchyma of the pancreas is not penetrated and the ductal system is not remarkable.

**SPLEEN:** The spleen weighs 200 gm. The penetration of the spleen has previously been described.

**DIAPHRAGM:** The penetrations of the diaphragm have previously been described.